

## Technical Manual

# COFFEE BREWER, MODELS, S AND SP, OPERATING AND SERVICE MANUAL

**DISTRIBUTION STATEMENT E:** DISTRIBUTION AUTHORIZED TO DOD COMPONENTS ONLY; CRITICAL TECHNOLOGY; DATE OF PUBLICATION. OTHER REQUESTS SHALL BE REFERRED TO THE NAVAL SEA SYSTEMS COMMAND (SEA-09B2).

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## Technical Manual

# COFFEE BREWER, MODELS, S AND SP, OPERATING AND SERVICE MANUAL

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APPROVAL AND PROCUREMENT RECORD PAGE

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H. W. EASON

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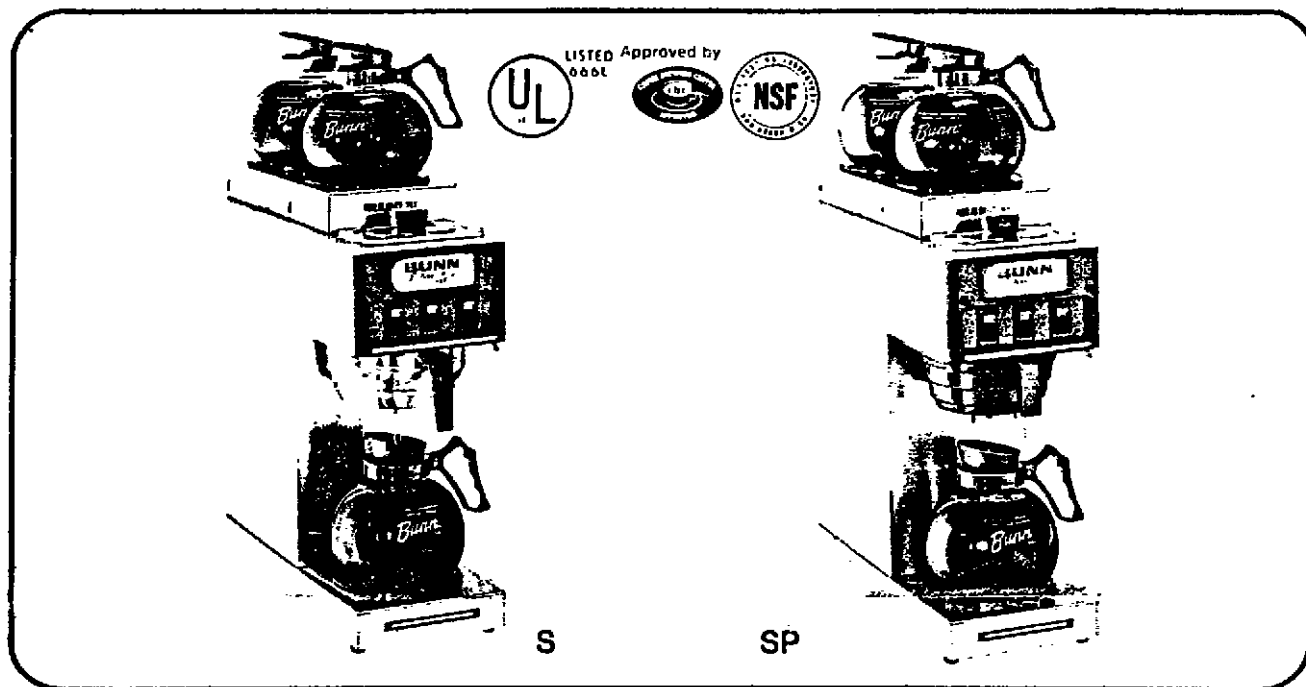




# Pour-Omatic

## COFFEE BREWERS

MODELS S and SP



# OPERATING & SERVICE MANUAL

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### WARNING

#### DISCARD GLASS DECANTER IF

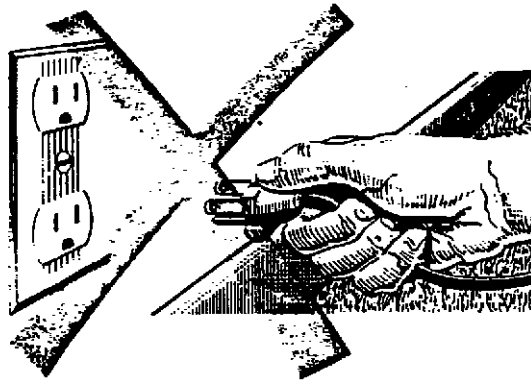
- CRACKED
- SCRATCHED
- BOILED DRY
- HEATED WHEN EMPTY
- USED ON HIGH FLAME OR OPEN ELECTRIC ELEMENTS.

FAILURE TO DO SO MAY RESULT  
IN BODILY INJURY.

## ELECTRICIAN'S INSTRUCTIONS

**WARNING!** Do NOT plug machine in until you have filled the tank with water (See Step 1)

Models S and SP are wired to operate on 120 Volts, AC single phase, 2 wire, and require a separate 15 amp circuit.



**WARNING:** Machine warranty is void if machine is connected to any voltage other than specified on name plate.

### INITIAL INSTALLATION:

(BEFORE PLUGGING IN MACHINE TO ELECTRICAL CIRCUIT.)

1. Place empty pot under funnel and pour three pots of water through screened opening in top lid. Allow approximately two minutes between pots for water to drain into tank. Water should come through funnel after the third pot of water is poured into the unit.

**HIGH ALTITUDE:** DUE TO HIGHER ALTITUDE LOCATIONS (5,000 FT. ABOVE SEA LEVEL) THERMOSTAT MAY HAVE TO BE READJUSTED TO PREVENT BOILING.

**WARNING:** CHASSIS MUST BE PROPERLY GROUNDED TO PREVENT POSSIBLE SHOCK HAZARD. ON CORD CONNECTED MODELS THAT HAVE A GROUNDING LEAD PROVIDED, IF AN ADAPTIVE PLUG MUST BE USED, AN ELECTRICAL GROUND MUST BE PROVIDED. DO NOT ASSUME A PLUMBING LINE WILL PROVIDE SUCH A GROUND.

### PLUG IN MACHINE TO 120V. CIRCUIT

2. Allow approximately 20 minutes for water in tank to heat to brewing temperature. (Additional water may drip from funnel on initial expansion of water in tank—this will not occur thereafter.)
3. After water has reached brewing temperature (thermostat will click off and heating noise will stop) pour  $\frac{1}{2}$  pot of water through the screened opening in the top lid. More than  $\frac{1}{2}$  pot of water may flow into pot below funnel due to water expansion in the tank. Machine is now ready for use.

### OPERATING PROCEDURE:

1. Drop filter into funnel.
2. Put the proper amount of fresh coffee into the filter.
3. Slide funnel into funnel holder.
4. Place empty pot on lower warmer and turn warmer to ON position.
5. Pour pot of water through lid opening into upper bowl.
6. Hot water will be delivered through the sprayhead. This distributes the hot water evenly over the coffee bed within the funnel. The coffee brew will drain from the funnel into the pot below.
7. TURN OFF WARMER WHEN NOT IN USE. (Amber light indicates warmer is on.)

The resultant coffee brew should be crystal clear and have the desired properties attainable through excellent extraction.

To clean funnel simply remove from funnel holder and dump filter into waste basket. The brewing process, as described above, can now be started again.

### LIMING

To prevent liming problems in tank fittings remove sprayhead and insert deliming spring all the way into the sprayhead tube. When inserted into tube properly, no more than two inches of the spring should be visible at the sprayhead fitting. Saw back and forth five to six times. This will keep fittings open and clear of

lime. In hard water areas this should be done every day; this takes less than a minute. In all areas sprayhead should be cleaned at least once a week. Time involved is about thirty seconds. Where bad liming has already occurred a new complete tank and basin assembly can be installed in thirty minutes, i.e. tank sprayhead assembly, etc.



# TROUBLE SHOOTING GUIDE

## MODELS S AND SP

SYMPTOM	POSSIBLE CAUSE	WHAT TO CHECK	REMEDY
NO HOT WATER	1. Tank Heater.	1. Check the voltage at the tank heater terminals. Voltage should be 120 volts A.C.	1. (A) If correct voltage is present at the tank heater terminals and water in tank is not being heated, replace tank heater.  (B) If voltage is not present at tank heater terminals, refer to Step 2.  (C) If incorrect voltage is present at tank heater terminals, check voltage at outlet.
	2. Limit Thermostat or Control Thermostat.	2. Check the voltage between the white wire on the tank heater terminal and the incoming terminal (black wire) on the limit thermostat, then the outgoing (blue wire) terminal on the limit thermostat. Voltage should be: Models S and SP, 120 volts A.C.	2. (A) If voltage is present on incoming terminal (black wire) on the limit thermostat, but not on the outgoing terminal (blue wire), replace limit thermostat.  (B) If voltage is not present on the incoming terminal on the limit thermostat. Replace control thermostat.
	3. Excessive Lime.	3. Refer to Liming Section, Page #2.	
STEAMING OR SPITTING AROUND FUNNEL	1. Control Thermostat	1. Thermostat points stuck, or out of calibration.	1. Thermostat should be replaced.
	2. Excessive Lime.	2. Tank, tank lid, or syphon cup assembly.	2. If lime build up is excessive, delime tank, tank lid, or syphon cup assembly.
	3. High Altitude	3. For altitude above 5,000 ft. see initial operation.	
DRIPPING	1. Not Siphoning properly.	1. Water should flow from sprayhead freely!	1. (A) Clean sprayhead holes.
	2. Excessive Lime.	2. Refer to Liming Section, Page #2.	

## TROUBLE SHOOTING GUIDE (Cont.)

SYMPTOM	POSSIBLE CAUSE	WHAT TO CHECK	REMEDY
DRY COFFEE REMAINING IN BREW FUNNEL AFTER BREW CYCLE HAS BEEN COMPLETED	<ol style="list-style-type: none"> <li>1. Filters.</li> <li>2. Not siphoning properly.</li> <li>3. Wrong sprayhead.</li> <li>4. Improper loading of funnel.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check if Bunn Filters are being used.</li> <li>2. Refer to "Dripping" section, step 1.</li> <li>3. Number of sprayhead holes.</li> <li>4. Filter and coffee in funnel.</li> </ol>	<ol style="list-style-type: none"> <li>1. Bunn Filters should always be used.</li> <li>2. Refer to "Dripping" section, step 1.</li> <li>3. A 6-hole sprayhead should be used.</li> <li>4. Filter should be centered in funnel and coffee bed should be level.</li> </ol>
COLD WARMER STATION	<ol style="list-style-type: none"> <li>1. Warmer—defective.</li> <li>2. Warmer On-Off Switch.</li> <li>3. Bad harness</li> </ol>	<ol style="list-style-type: none"> <li>1. Voltage at warmer terminals. Should be 120 volts A.C.</li> <li>2. If voltage is not present on warmer terminals, check continuity of switch.</li> <li>3. Check connections between harness and switch and switch and warmer.</li> </ol>	<ol style="list-style-type: none"> <li>1. If voltage is present on terminals, but warmer will not heat, replace warmer.</li> <li>2. If switch does not make and break when turned on and off, replace switch.</li> <li>3. Be sure all connections are tight.</li> </ol>

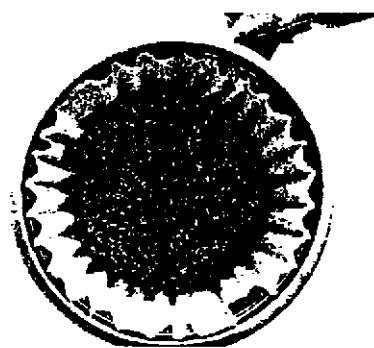
## THREE EASY BREWING STEPS FOR DELICIOUS COFFEE



1. First insert a Bunn paper filter in the funnel.



2. Pour coffee into filter. Slide funnel into brewer and pour water into top of brewer.



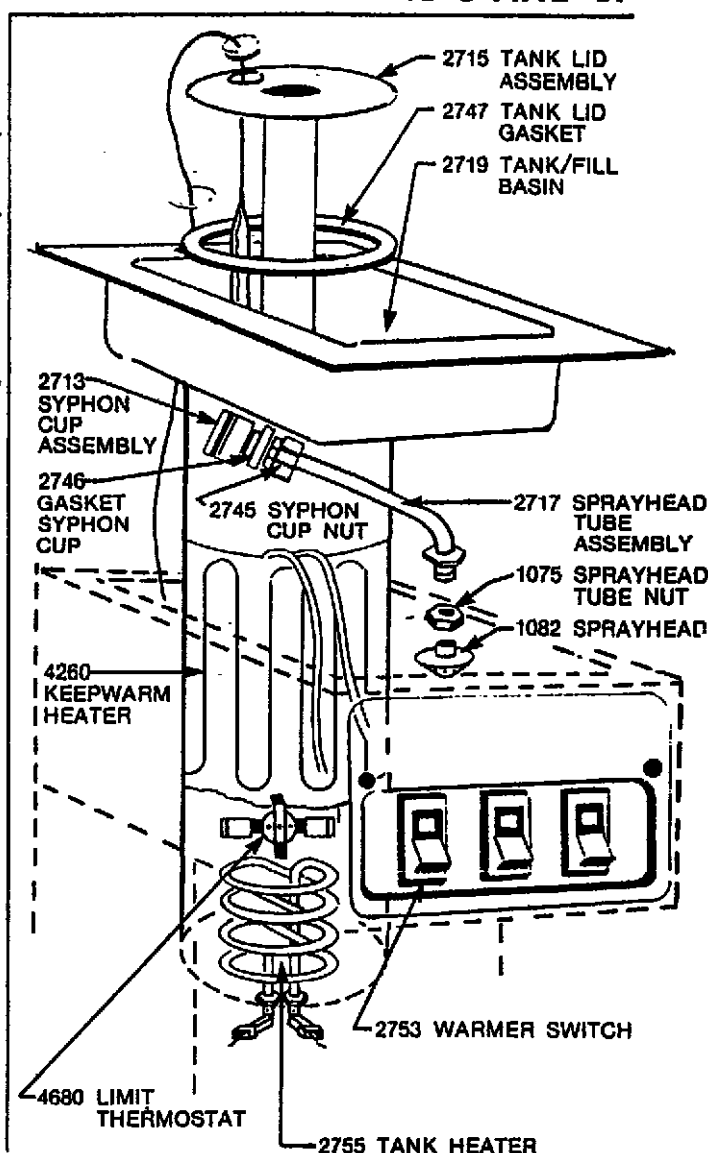
3. When brewing is completed, simply discard filter and grounds. You are immediately ready for another brewing cycle.

**MODELS S AND SP****REPLACING THERMOSTAT**

1. Remove top lid.
2. Remove old thermostat bulb by pulling firmly upward on the capillary.
3. Remove rear access panel of machine (via 4 screws).
4. Disconnect electrical leads to thermostat.
5. Remove thermostat (via 2 screws.)
6. On the new thermostat, slide the red capillary grommet to the red mark on the capillary. (Fig. 1)
7. Insert the bulb through the hole in the tank lid and press the grommet firmly and evenly so that the groove in the grommet fits into the tank lid.

**REPLACING TANK HEATER**

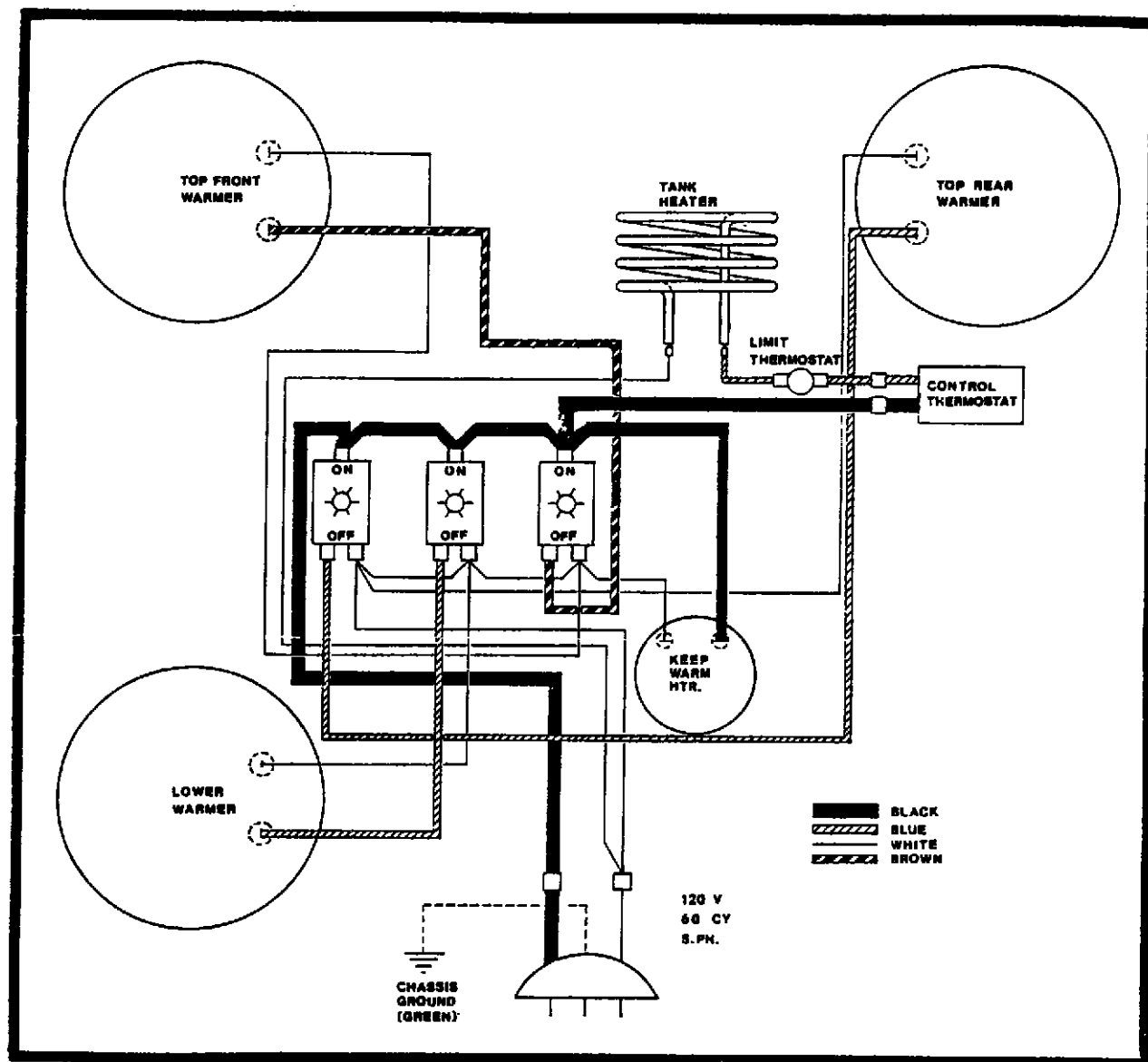
1. Remove top lid.
2. Remove sprayhead and sprayhead nut from water tube below the hood.
3. Remove rear access panel of machine (via 4 screws).
4. Remove wire leads from limit thermostat located on backside of tank.
5. Disconnect lead wires to tank heater.
6. Remove tank and pour-in-basin combination to replace tank heater.
7. When replacing tank heater be sure to use new copper washers. Nuts should be securely tightened against new copper washers to assure water proof seal.



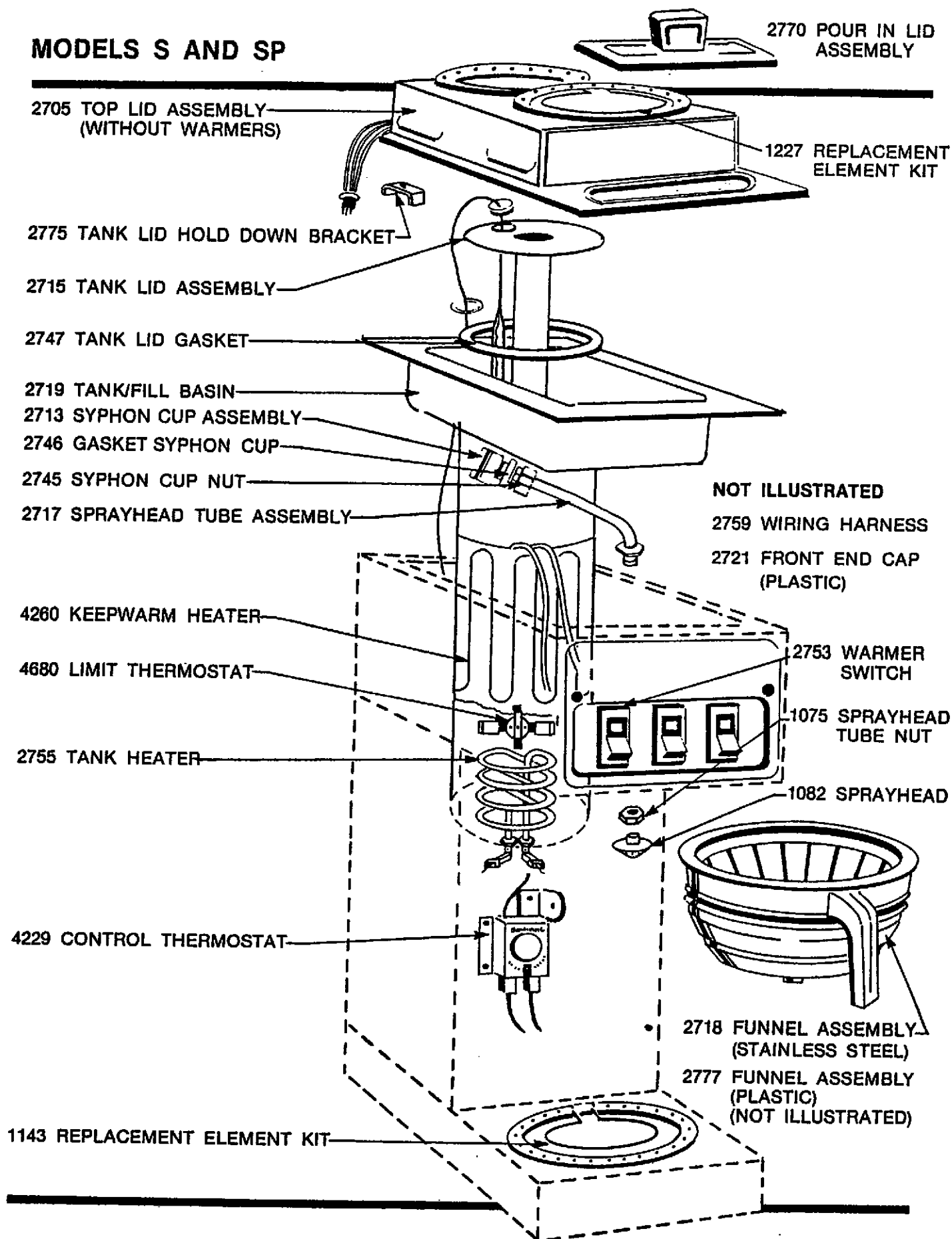
**\*SAFETY NOTE: Unplug machine before any servicing.**

**REPLACING ON-OFF SURFACE HEATER ELEMENTS**

1. Remove 3 small screws holding saucer assembly to machine.
2. Lift saucer assembly up and out enough to expose wire terminals. Notice directional orientation of terminals towards the wire harness. Be sure to orient heater leads in precisely the same direction when installing the replacement element.
3. Disconnect spade-clipped wires from element ends. These are interchangeable when replacing element.
4. Make sure 3 small clip nuts are in place around warmer opening and replace new warmer assembly using 3 small screws.



# MODELS S AND SP





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